RESPONSE TO RESTRICTION REQUIREMENT AND PRELIMINARY AMENDMENT
Application No.: 10/522,594 Attorney Docket No.: Q85900

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1. (cancelled)
- 2. (currently amended): A positive electrode active material for a secondary battery comprising a lithium manganate and a lithium nickelate, wherein said lithium manganate is a particle compound having a spinel structure represented by the following formula (1) or said compound in which some of Mn or O sites are replaced with another element; and

an Mn elution amount when immersing said particles in a mixture comprising an electrolyte salt and a carbonate solvent is 1000 ppm or less as determined by inductive coupling plasma emission analysis; and

a specific surface area of said particles as determined by the BET method is $0.3 \text{ m}^2/\text{g}$ to $0.8 \text{ m}^2/\text{g} \text{ both inclusive}: \qquad \text{Li}_{1+x}\text{Mn}_{2-x}\text{O}_4 \quad (1) \text{(in said formula (1) above, } 0.15 \leq x \leq 0.24).$

3. (withdrawn): A positive electrode active material for a secondary battery comprising a lithium manganate and a lithium nickelate,

wherein said lithium manganate is a particle compound having a spinel structure represented by the following formula (1) or said compound in which some of Mn or O sites are replaced with another element; and

a specific surface area of said particles as determined by the BET method is $0.3 \text{ m}^2/\text{g}$ to $0.8 \text{ m}^2/\text{g}$ both inclusive:

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 $Li_{1+x}Mn_{2-x}O_4$ (1)(in said formula (1) above, $0.15 \le x \le 0.24$).

4. (currently amended): The positive electrode active material for a secondary battery according to claim 1claim 2, wherein said lithium nickelate is a compound represented by the following formula (2) or said compound in which some of Co or O sites are replaced with another element:

 $LiNi_{1-y}Co_yO_2$ (2)(in said formula (2) above, $0.05 \le y \le 0.5$).

5. (currently amended): The positive electrode active material for a secondary battery according to Claim 4claim 2, wherein said lithium nickelate is a compound represented by the following formula (3):

$$LiNi_{1-\alpha-\beta}Co_{\alpha}M_{\beta}O_{2}$$
 (3)

(in said formula (3) above, M comprises at least one of Al and Mn; $0.1 \le \alpha \le 0.47$; $0.03 \le \beta \le 0.4$; and $0.13 \le \alpha + \beta \le 0.5$).

6. (currently amended): The positive electrode active material for a secondary battery according to elaim 1 claim 2, wherein said lithium nickelate is a compound represented by the following formula (4):LiNi_{1-p-q}Co_pM_qO₂ (4)

(in said formula (4) above, M comprises at least one of Al and Mn; $0.1 \le p \le 0.5$; $0.03 \le q \le 0.5$; and $0.13 \le p + q < 1$).

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- 7. (currently amended): The positive electrode active material for a secondary battery as claimed in elaim 1 claim 2, wherein when a weight ratio of said lithium manganate to said lithium nickelate is a = (100-a)a: (100-a), "a" is in a range of $20 \le a \le 80$.
- 8. (currently amended): A positive electrode for a secondary battery comprising said positive electrode active material for a secondary battery as claimed in elaim 1 claim 2 which is bound via a binder.
- 9. (currently amended): A secondary battery comprising at least a positive electrode and a negative electrode, comprising said positive electrode active material for a secondary battery as claimed in elaim-1 claim 2.
- 10. (currently amended): The secondary battery as claimed in Claim 9claim 2, wherein said negative electrode comprises amorphous carbon as a negative electrode active material.
- 11. (withdrawn, currently amended): A process for manufacturing said positive electrode active material for a secondary battery as claimed in elaim 1claim 2, comprising the steps of: mixing an Mn source and an Li source to prepare a first mixture, which is then subjected to a first calcination at a temperature of no less than 800 °C; and

mixing a first-calcination product obtained by said first calcination with said Li source to prepare a second mixture with a higher rate of said Li source than said first mixture, and conducting a second calcination of said second mixture at a temperature of no less than 450 °C and lower than said first calcination to obtain said lithium manganate.

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wherein a D_{50} particle size of said Li source is 2 μm or less.